

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows

1.- 15. (Canceled)

16. (Previously Presented) A method of producing a nonaqueous secondary battery, comprising the steps of:

assembling a negative electrode, a positive electrode and a separator into a final battery form;

combining an amount of electrolyte solution and an amount of monomer;

introducing the amount of electrolyte solution and the amount of monomer into the final battery form; and

crosslinking the monomer in the presence of the electrolyte such that a first portion of the electrolyte solution forms a gel with the crosslinked polymer and a second portion of the electrolyte forms a separated phase of liquid electrolyte solution.

17. (Currently Amended) The method according to claim 16, wherein the combining comprises ~~dissolving a low molecular weight compound that is polymerizable~~ the amount of monomer in the electrolyte solution in advance of introducing the combined solution into the final battery form, and wherein the monomer has a molecular weight of 400 or less.

18. (Currently Amended) The method according to claim 17, wherein dissolving the amount of monomer comprises dissolving an amount of a first monomer having a single reaction point with an amount of a second monomer having two or more reaction points so as to control the degree of crosslinking of the crosslinked polymer ~~is controlled by a combination of a low molecular weight compound having a single reaction point and a low molecular weight compound, which~~ and wherein the second monomer functions as a crosslinking agent, ~~having two or more reaction points.~~

19. (Canceled).

20. (Currently Amended) The method according to claim 17, wherein the monomer comprises a (meth)acrylate monomer ~~as the polymerizable low molecular weight compound is used.~~

21. (Currently Amended) The method according to claim 18, wherein the second monomer comprises ethylene dimethacrylate ~~as the low molecular weight compound~~ functioning as a crosslinking agent ~~is included~~.

22. (Canceled).

23. (Previously Presented) A nonaqueous secondary battery made by the method of claim 16.

24. (Previously Presented) The method according to claim 16, wherein the assembling comprises:

laminating the positive electrode and the negative electrode through the separator and incorporating the electrodes into a battery cell.

25. (Previously Presented) The method according to claim 16, wherein the combining comprises selecting the mass ratio of the amount of electrolyte solution and the amount of monomer based on the crosslink density of the crosslinked polymer so as to exceed the mass ratio at which the electrolyte can be contained in the crosslinked polymer in gel phase.

26. (Previously Presented) The method according to claim 16, wherein the crosslinking comprises heating the final battery form for a time period in the range of two minutes to two hours.

27. (Previously Presented) The method according to claim 16, wherein the crosslinking comprises heating the final battery form for approximately 80 minutes.

28. (Currently Amended) The method of producing a nonaqueous secondary battery, the method comprising:

assembling a negative electrode, a positive electrode, and a separator to form a battery;

injecting an ~~undiluted~~ solution of electrolyte containing electrolyte solution and monomers capable of crosslinking into said battery;

polymerizing and crosslinking the solution; and

obtaining a solid electrolyte, comprising an electrolyte solution and a crosslinked polymer that is chemically crosslinked, wherein the electrolyte includes therein a gel phase, in which the crosslinked polymer is swelled with the electrolyte solution, and a separated phase of electrolyte solution.